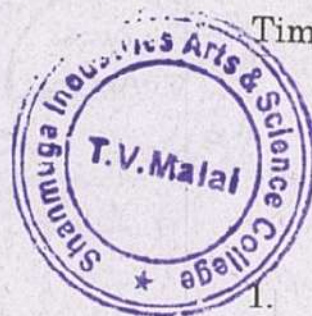


NOVEMBER/DECEMBER 2024

CABC42/FABC42 — MICROBIOLOGY - II
(Allied)

Time : Three hours

Maximum : 75 marks



SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Mention the names of any two plant diseases.
2. Write any two role of microbes in soil formation.
3. Define disinfection.
4. Give the organisms involved in nitrogen cycle.
5. How is dehydration helpful in food preservation?
6. Relate the organism used in making butter.
7. Name any one fermented beverage and the organism used in its production.
8. Outline the process of biodeterioration.
9. Sketch the morphology of *Entamoeba histolytica*.
10. Write the virulence factors of *Salmonella typhi*.

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Identify the organisms in the rhizosphere and rhizoplane. Explain the rhizosphere effect.

Or

- (b) Analyse the contribution of biopesticides in improving the crop yield and quality.

12. (a) Explain in brief the biological methods used in sewage treatment.

Or

- (b) Examine the nitrogen cycle and list its benefits.

13. (a) Write the role of microbes in food spoilage.

Or

- (b) Examine the diverse methods employed in the preservation of food.

14. (a) Construct a flow chart showing the application of microbes in the production of glutamic acid.

Or

- (b) Examine the steps involved in the industrial production of cyanocobalamin.

15. (a) Identify the virulence factors, lab diagnosis and methods of preventing *Vibrio cholerae*.

Or

- (b) Analyse the virulence factors, lab diagnosis and methods of preventing transmission of HIV.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Justify the use of biofertilizers in preserving the fertility of the soil.
17. Explain the modes of transmission and methods of prevention of water borne diseases in India.
18. Evaluate the food borne infections caused by fungi as compared to those caused by bacteria.
19. Elaborate on the construction of fermenters. What are its types?
20. Compile the details of morphology, culture characteristics, virulence factors and diagnostic test for *Mycobacterium tuberculosis*.

